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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,068	07/14/2003	Ippei Nakamura	Q76351	4323
23373	7590	07/14/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			CHOI, LING SIU	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 07/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/618,068

Applicant(s)

NAKAMURA ET AL.

Examiner

Ling-Siu Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. This Office Action is in response to the Amendment filed April 27, 2006. Claims 1-20 are now pending, wherein claims 18-20 have been withdrawn from consideration. The following rejections are based on a new ground. Thus, the Office Action is made as second non-final rejection. In view of the amendment made in claims 18 and 20, claims 18-20 will be rejoined with Group I if the Group I is found allowable.

***Claim Analysis***

2. Summaries of claims 1-3:

claim			A resin composition comprising	
3	2	1	A	an alkali-soluble resin
			B	an infrared absorbing agent
			C	a thiol compound
		wherein a solubility of the resin composition in an alkaline aqueous solution is changed by exposure with an infrared laser beam		
		wherein the thiol compound can tautomerize as follows. -C(SH)=X- ⇌ -C(=S)-X(H)-		
wherein X = nitrogen atom or methine group				

***Claim Rejections - 35 USC § 102/103***

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was

5. Claims 1, 4-9, and 16-17 are rejected under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kenji et al. (JP 54-092526).

Kenji et al. disclose a masking material as ink or coating, comprising a -  
**SH group-containing organic sulfur compound** with acid stability and heat resistance, **an amine compound**, and **phenolic and/or rosin type alkali soluble resin**, wherein the -SH group-containing organic sulfur compound is listed in Table 1 (page 142). However, Kenji et al. are silent on the dependence of solubility on the exposure with the infraed laser beam. In view of the substantially identical composition as the present claims, the present composition would possess such claimed properties. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to

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show otherwise. **In re Best**, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); **In re Fitzgerald**, 205 USPQ 594 (CCPA 1980).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenji et al. (JP 54-092526) in view of Miura et al. (JP 11-020318 A).

The disclosure of Kenji et al. is adequately disclosed in paragraph 5 and is incorporated herein by reference.

The difference between the present claims and the disclosure of Kenji et al. is the requirement of the specific -SH group-containing organic sulfur compounds used in the composition.

Miura et al. disclose -SH group-containing sulfur compounds represented as formulae (2), (4), and (8) (page 3). Since formula (8) is also disclosed by Kenji et al., -SH group-containing sulfur compounds represented by formula (2) or (4) is equivalent to and exchangeable with the one represented by formula (8). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use -SH group-containing sulfur compound represented

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by formulae (2) or (4) in the disclosure of Miura because of its equivalence to and exchange with formula (8) and thereby obtain the present invention.

8. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenji et al. (JP 54-092526) in view of Iguchi et al. (US 4,436,805).

The disclosure of Kenji et al. is adequately disclosed in paragraph 5 and is incorporated herein by reference.

The difference between the present claims and the disclosure of Kenji et al. is the requirement of the specific -SH group-containing organic sulfur compounds used in the composition.

Iguchi et al. disclose -SH group-containing organic sulfur compound represented in the general formula (I), which can be a compound of formula (5) or (8) (col. 3, lines 40 and 60). It is noted that -SH group-containing organic sulfur compound can be represented by the general formula (I). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use -SH group-containing sulfur compound represented by formulae (5) or (8) in the disclosure of Iguchi and thereby obtain the present invention.

### ***Response to the Applicants' Arguments***

9. Applicant's arguments filed on April 27, 2006 have been fully considered but they are not persuasive.

Applicants: "**Miura** is directed to thermal recording materials, which belong

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to a different technical field from the field of masking material for plating as in Kenji. Therefore ..... there is no motivation to even combine the disclosures of Kenji and Miura.” And “Since Kenji and Iguchi are directed to different technologies....one would not have been motivated to substitute teachings from Iguchi into Kenji. In particular, Applicants submit that one would not have been motivated to use a compound from a silver complex diffusion transfer process in place of a compound used in a masking material for plating, so one would not have even combined the references.”

It is noted that Kenji et al. are silent on the dependence of solubility on the infraed laser-beam exposure. And, Kenji et al. do disclose a masking material comprising substantially identical components. Thus, it is reasonable to believe that Kenji et al. would possess the claimed properties since the claimed properties mainly depends on the combination of the components which form the composition. Since Kenji et al. disclose a thio compound in the general form, which meets the claimed requirement, it implies that any thio compound meeting the general form will satisfy the requirements of the present claims. The species disclosed by Miura or Iguchi do meet the general form of the thio compound. Thus, it is obvious to be used in the disclosure of Kenji et al. and meet the present claims although theses species are disclosed to have other applications.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from

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the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.



LING-SUI CHOI  
PRIMARY EXAMINER

July 6, 2006